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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,624	07/10/2003	Eduardo Blumwald	529642000500	4097
20872	7590	08/10/2006		EXAMINER
MORRISON & FOERSTER LLP 425 MARKET STREET SAN FRANCISCO, CA 94105-2482				KUMAR, VINOD
			ART UNIT	PAPER NUMBER
			1638	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No.	Applicant(s)
	10/617,624	BLUMWALD, EDUARDO
	Examiner	Art Unit
	Vinod Kumar	1638

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED _____ FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) The period for reply expires _____ months from the mailing date of the final rejection.
 b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
 Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) They raise the issue of new matter (see NOTE below);
 (c) They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. Applicant's reply has overcome the following rejection(s): _____.
 6. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. For purposes of appeal, the proposed amendment(s): a) will not be entered, or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1, 9-11, 18-21 (claims at final rejection).

Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. The request for reconsideration has been considered but does NOT place the application in condition for allowance because:

12. Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____

13. Other: _____

Phuong T. Bui
 PHUONG T. BUI 7/27/06
 PRIMARY EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because:

In the paper filed July 14, 2006, Applicants argue that Claim 1 has been amended to specify that the transgenic oil crop plant comprises a recombinant plant-derived NHX-type transporter protein. Further, page 24 of specification teaches that 64 transgenic oil crop plants were produced. As such claims are fully enabled (response, page 5, last paragraph)

Applicant's arguments were fully considered but were not found persuasive. Examiner maintains NHX-type transporter as recited in the amended claims encompasses any plant NHX-type transporter. For example, claims encompasses NHX2 taught by Venema et al. which affects K⁺ and not Na⁺ accumulation (Office action mailed March 14, 2006, page 3, 3rd paragraph through the end of first paragraph of page 4). Further, 64 transgenic oil crops on page 24 of specification refers to one transgenic plant species (*Brassica napus*) transformed with AtNHX1 transporter. These are just 64 transgenic lines, all comprising AtNHX1 transporter. Examiner maintains that undue experimentation would have been required by one skilled in the art to determine how to use the claimed invention in view of lack of guidance and unpredictability of the art.

Applicants argue that Examiner has not explained why 37 examples of amino acid sequences encoding plant-derived NHX type transporter proteins from different species would not be enough for the skilled artisan to recognize a genus (response, page 5, last paragraph).

Applicants argument were fully considered but were not found persuasive. Examiner maintains that claims encompass any plant derived NHX transporter protein. Prior art teaches that not all the NHX transporter proteins are functionally related (for example, see Venema et al. teachings). Further, applicants have failed to correlate structures of a broadly claimed genus to the function. Furthermore, Applicants have failed to describe the conserved structural elements that are shared between the undisclosed structures. Applicants have failed to reduce the broadly claimed genus to practice.

Accordingly, rejections are maintained